

## Message Text

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ORIGIN COME-00

INFO OCT-01 CIAE-00 DODE-00 EB-08 NSAE-00 USIA-06  
TRSE-00 EUR-12 DOE-11 ISO-00 SOE-02 ACDA-12 /052 R

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P 262255Z JAN 78  
FM SECSTATE WASHDC  
TO AMEMBASSY PARIS PRIORITY  
INFO AMEMBASSY BUDAPEST PRIORITY

C O N F I D E N T I A L STATE 021849

EXCON USOECD

E.O. 11652: XGDS-1

TAGS: ESTC, COCOM, HU

SUBJECT: EXPORT OF ASSEMBLY EQUIPMENT FOR SEMICONDUCTORS  
TO HUNGARY - IL 1355

REF: BTR CASE NOS. A. 272455 AND B. 272456 (FAIRCHILD) ;  
OC DOC NO. 5834; LD NO. 3337, 1/23/78

1) THE UNITED STATES DELEGATION IS REQUESTED TO SUBMIT  
THE FOLLOWING URGENCY CASE TO THE COMMITTEE PURSUANT TO  
COCOM DOC REG (77)1, PARAGRAPH 4(B).

2) THE UNITED STATES AUTHORITIES HAVE BEEN ASKED TO  
APPROVE THE EXPORT TO HUNGARY OF THE FOLLOWING EQUIPMENT  
WITH A TOTAL VALUE OF 137,204 DOLLARS AND COVERED BY IL  
1355:

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A. 11 TYPE K AND S 478 HI-SPEED TAILLESS THERMOCOMPRESSION  
BALL BONDE S TH WORKHOLDERS FOR DIP LEAD FRAME WIRE.  
UNITS WIRE F 220 OLT-SINGLE PHASE 50 HZ OPERATION  
3 TYPE K AND S 479 BALL BONDERS  
1 LOT SPARE PARTS FOR BONDER AND WORKHOLDER

B. 5 DIE ATTACH MACHINES FOR 16 LEAD PACKAGES (2 EQUIPPED

WITH ATTACHMENTS FOR 24 LEAD PACKAGES)

3) THIS EQUIPMENT IS CONSIGNED TO TUNGSRAM UNITED INCANDESCENT LAMP AND ELECTRICAL CO., LTD., VACI UT 77, BUDAPEST TO BE USED FOR ASSEMBLY OF PLASTIC BIPOLAR INTEGRATED CIRCUITS FOR CIVILIAN USAGE.

4) THE 14 BALL BONDERS ARE TO BE ADDED TO THE 34 BALL BONDERS PREVIOUSLY SHIPPED TO TUNGSRAM UNDER COCOM DOC. (75)2219. ELEVEN OF THE BONDERS IN THIS APPLICATION ARE IDENTICAL (MODEL 478) TO THE 34 THAT WERE PREVIOUSLY EXPORTED, WHILE 3 ARE MODEL 479'S. THE LATTER DIFFER SLIGHTLY IN THAT THEY ADD THE POSSIBILITY FOR AN ULTRA-SONIC ASSIST TO THE BALL BONDING. THIS ASSIST PERMITS THE 479 BONDERS TO BE USED AT THE ROOM TEMPERATURE IN ADDITION TO THE ELEVATED TEMPERATURE NORMALLY EMPLOYED. ROOM TEMPERATURE BONDING IS REQUIRED FROM TIME TO TIME ON SEMICONDUCTOR CHIPS WHICH HAVE BEEN PREVIOUSLY BONDED TO A SUBSTRATE OR HEADER EMPLOYING LOW TEMPERATURE SOLDER SYSTEMS. HERE THE ELEVATED TEMPERATURE WOULD ALSO FLOAT THE DIE OFF DURING THE COURSE OF MAKING THE BOND. BY LOWERING THE BONDING TEMPERATURE, THE DIE SOLDER SYSTEM IS NOT DISTURBED.

THESE ADDITIONAL BONDERS ARE NEEDED BY THE TUNGSRAM COMPANY DUE TO THE FACT THAT THEIR PRODUCTION REQUIREMENTS

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HAVE BEEN INCREASED FROM THE TEN MILLION FINISHED BIPOLAR INTEGRATED CIRCUITS PER YEAR TO FIFTEEN MILLION FINISHED INTEGRATED CIRCUITS PER YEAR.

THE K AND S MODELS 478 AND 479 BONDERS ARE SEMI-AUTOMATIC IN OPERATION. THEY ARE NOT PROGRAMMABLE AND REQUIRE THE MANUAL INSERTION AND EXTRACTION BY A SKILLED OPERATOR OF THE DEVICE TO BE BONDED. ONCE INSERTED, THE DEVICE MUST BE MANUALLY ALIGNED BY THE OPERATOR USING A MICROSCOPE, LIGHT POINT SOURCE AND LIGHT CELL. THEN THE MACHINE CAN BE INITIATED TO AUTOMATICALLY MAKE A BOND AND RETURN TO A READY POSITION AND AWAIT ANOTHER MANUAL COMMAND TO BOND AFTER THE OPERATOR ALIGNS THE BONDING HEAD (TOOL) OVER THE NEXT SPOT TO BE BONDED.

THE 5 FAIRCHILD DIE ATTACH MACHINES ARE IDENTICAL TO THE SEVEN DIE ATTACH MACHINES (MODEL FSC P5372D) PREVIOUSLY SHIPPED TO TUNGSRAM UNDER COCOM (75)2219. THESE MACHINES ARE NEEDED BY TUNGSRAM IN ORDER TO COPE WITH THEIR EXPANDED PRODUCTION NEEDS.

5) BROCHURES FOR THE 478 AND 479 BALL BONDERS HAVE BEEN

DEPOSITED WITH THE SECRETARIAT.

6) THE UNITED STATES AUTHORITIES CONSIDER THIS EXPORT  
O ABLE AND APPROPRIATE FOR THE STATED END-USE. THEY  
S TO APPROVE IT UNDER THE URGENCY PROCEDURE SET FORTH  
IN COCOM DOC. REG. (77)1, PARAGRAPH 4(B) AS APPLICANT  
STANDS TO LOSE THE ORDER, AND WOULD APPRECIATE THE VIEWS  
OF MEMBER GOVERNMENTS.

FYI-- BROCHURES HAVE BEEN AIRMAILED FROM COMMERCE ON  
1/24/78. VANCE

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## Message Attributes

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**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** EXPORTS, ELECTRONIC EQUIPMENT  
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